

AMENDMENTS TO THE CLAIMS

1-6. (Cancelled)

7. (Original) A force/torque (FT) sensor, comprising:

a sensor housing;

at least one transducer within said sensor housing operative to convert an applied force or torque to a transducer electrical signal;

electronics operative to convert said transducer electrical signal to a force/torque signal suitable for reception by a data acquisition system and to transmit said

force/torque signal in analog format on a multi-conductor cable; and

memory for storing digital calibration data associated with said sensor.

8. (Original) The FT sensor of claim 7 wherein said electronics and said memory reside within said sensor housing.

9. (Original) The FT sensor of claim 8 wherein said electronics is operative to transmit said force/torque signal in analog format on one channel of said multi-conductor cable, and to transmit said digital calibration data as a digital bitstream on another channel of said multi-conductor cable.

10. (Original) The FT sensor of claim 9 wherein said force/torque signal and said calibration data are transmitted as differential pairs.

11. (Original) The FT sensor of claim 7 further comprising a power supply in a power supply housing, separate from said sensor housing, said power supply operative to supply power to said FT sensor.

12. (Original) The FT sensor of claim 11 wherein said electronics and said memory reside within said power supply housing.

13. (Original) The FT sensor of claim 12 wherein said electronics is operative to transmit said force/torque signal in analog format on one channel of said multi-conductor cable, and to transmit said digital calibration data as a digital bitstream on another channel of said multi-conductor cable.

14. (Original) The FT sensor of claim 13 wherein said force/torque signal and said calibration data are transmitted as differential pairs.

15. (Original) The FT sensor of claim 7 further comprising a data acquisition system attached to said multi-conductor cable and operative to receive said force/torque signal and said calibration data as analog inputs.

16. (Original) The FT sensor of claim 15 wherein said data acquisition system interprets said calibration data as a digital bitstream.

17. (Original) The FT sensor of claim 7 further comprising a data acquisition system attached to said multi-conductor cable to receive said force/torque signal and a data communications port also attached to said multi-conductor cable to receive said calibration data.

18. (Original) The FT sensor of claim 17 wherein said data communications port complies with the EIA RS-232 standard.

19. (Original) The FT sensor of claim 18 wherein the two differential lines of said multi-conductor cable carrying said calibration data are connected to the receive data and signal ground connectors of said data communications port.

20. (Cancelled)